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EXAMINER				
BODAWALA, DIMPLE N				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/776,694

Applicant(s)

NGO ET AL

Examiner

DIMPLE N. BODAWALA

Art Unit

1791

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 7 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims 5 and 8-20 drawn to an invention nonelected in the reply filed on 4/5/2008 and 10/9/2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-4, 6-7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (US 6,261,497) in view of either Brannon et al. (US 2,400,482) or Krumdieck (US 5,550,033).**

6. Wong et al. ('497) discloses an invention for making controlled pore glass-synthetic resin article which comprises step of mixing polyalkylene with silane-modified CPG; heating the mixture; cooling the mixture (See col.2 lines 59 through col.3 line 15), wherein polyalkylene is selected from solid polyolefin such as polyethylene, polypropylene, etc (See col.2 lines 30-35). It further suggests that the controlled pore glass bead of CPG has been modified with amino (See col.3 lines 18-25). It further teaches that the quantity of the polyalkylene is preferably about 60% based on total weight of the mixture (See example 1).

7. Here, claim 6 cites product limitation such as embedded device contains less than 10 micromoles of reactive amino or mercapto moieties as further limitation of the subject matter. There is no patentability weight for product limitation in process invention, since product fails to cite process steps as further limitation. Furthermore, claim 6 fails to cite size of the device which has less than 10 micromole of reactive amino or mercapto moieties. The prior art, Wong et al. (US 6,261,497) teaches that the device contains reactive amino (See col.3 lines 19-21) for reacting with biological molecules, which could have been obvious to manufacture the device which contains less than 10 micromoles of reactive amino as recited in the claim of the instant application.

8. Wong et al. discloses all claimed process steps as discussed above. It further teaches that the invention is involved to use material mixture for forming product in the shape of calendared sheet, rather than cylindrical plug, because it fails to teach or suggest aluminum plate with cylindrical well.

9. Brannon et al. discloses resin casting mold, wherein mold (or plate) (10) is made from metal (See page 1 lines 11-25) having plurality of individual casting shells (11) having shape of circular, polygonal, etc. (See page 1 lines 45-50; figures 1-5). It further discloses an invention comprising ejection mechanism which is involved to eject the product after curing, wherein released article comprises a cylindrical shaped plug (See figures 2, 6; page 1 lines 1-10). However, Brannon et al. discloses mold comprises metal plate, but fails to teach or suggest metal plate is aluminum plate. Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Brannon et al. by using aluminum material as metal mold because such material is involved to better provide the desired temperature of the mold during the operation, in order to cast the material in desired configuration. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker*, 217 USPQ 1 (Fed. Cir. 1983).

10. Brannon further discloses metallic mold with plurality of individual casting shells, but fails to provide numbers of casting shells as cited in claim 7 such as 50-5000. Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's

invention to modify the invention of Brannon et al. by providing numbers of casting shells within metallic mold, in order to cast plurality of product with similar configuration or features in same time. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker, 217 USPQ 1 (Fed. Cir. 1983).*

11. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Wong et al. by providing aluminum metallic mold with plurality of casting shells as suggested by Brannon et al. because property of the mold indicated that the mold is capable to provide sufficient support to the mixture within the shell during the manufacturing process such as high temperature or other application, in order to produce product with desired features such as cylindrical plug. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker, 217 USPQ 1 (Fed. Cir. 1983).*

12. Krumdieck ('033) discloses forming apparatus and method for embedding tissue samples, wherein apparatus comprises cradle (11) as a mold having a plurality of cylindrical cavities (14) (See figure 1), wherein metal mold and cavities (14) are made from suitable material such as aluminum (See col.3 lines 10-15), wherein the invention comprises plunger (22) for releasing product from the cavities. Here, invention is involved to slice the product, but the size and shape of the mold of the art is capable to mold a product or embedding device with cylindrical shape as cited in the claim.

Krumdieck ('033) further discloses aluminum mold with plurality of individual casting cavities, but fails to provide numbers of casting shells as cited in claim 7 such as 50-5000. Thus, it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Krumdieck ('033) by providing desired numbers of casting cavities within metallic mold, in order to cast plurality of product with similar configuration or features in same time. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker, 217 USPQ 1 (Fed. Cir. 1983)*.

13. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Wong et al. by providing metallic mold with plurality of casting cavities of Krumdieck because such mold is capable to provide sufficient support to the mixture within the cavities during the manufacturing process, in order to produce product with desired features such as cylindrical plug. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker, 217 USPQ 1 (Fed. Cir. 1983)*.

Response to Arguments

14. Applicant's arguments, see Remarks, filed on 10/9/2008, with respect to objection of claim 1 have been fully considered and are persuasive. Therefore, objection of claim 1 has been withdrawn in view of amendment of claim 1 submitted on 10/9/2008.

15. Applicant's arguments, see Remarks, filed on 10/9/2008, with respect to Rejection of claim 1 under 35 USC 112, second paragraph have been fully considered and are persuasive. Therefore, rejection of claim 1 has been withdrawn in view of amendment of claim 1 submitted on 10/9/2008.

16. Applicant's arguments, see Remarks, filed on 10/9/2008, with respect to objection of oath/declaration have been fully considered and are persuasive. Therefore, objection of oath/declaration has been withdrawn.

17. The objection of Information Disclosure Statement has been maintained because Applicant fails to provide PTOL-1449 form as discussed above.

18. Rejection of claims over Ellman et al. in view of Wong et al. has been withdrawn without prejudice.

19. Applicant argues that in combination rejection of Wong in view of Ellman, wherein Wong discloses combining a polyolefin with an inorganic porous material; and Ellman discloses substrate that can include one or more reaction vessels or wells, wherein the substrate is a part of the cylindrical wells of plate and the particles are bonded to the substrate/well, thus, the mixture of the substrate and the particles do not fill the well. Instead merely the particles fill the well, as the well itself is the substrate. Thus, neither Wong nor Ellman teach or suggest "mixing a polyalkylene with a silane-modified CPG..." and "filling the cylindrical wells of an aluminum plate with the mixture..." as cited in claim 1. Further, neither of the cited references teaches step of "releasing the

embedded devices from the plate". Applicant's arguments are fully considered but are moot in view of new ground of rejection.

20. Applicant further argues that it is improper to select isolated elements from prior art references with the benefit of hindsight and use the disclosure of the patented invention as a template to recreate the patented invention.

21. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case the invention of Wong is modified by providing aluminum plate with wells of Ellman, because such plate comprises cylindrical wells having material receiving space (See figures 1-4), there such configuration enable to provide sufficient support to the mixture within the well during the manufacturing process, which gives the benefit to produce embedded device with desired features. It is not necessary that the prior art suggests expressly or in so many words the changes or possible improvements the inventor made but that the knowledge is clearly present. *In re Sernaker*, 217 USPQ 1 (Fed. Cir. 1983).

22. Applicant further argues that Wong et al. was concerned with producing a rigid porous sheet while Ellman et al. was concerned with forming a solid phase-support in a

well of a plate using the substrate of the well itself. Thus, neither Wong et al. nor Ellman et al. discloses a mold for embedded device, wherein each of the released embedded devices is a cylindrically shaped plug comprising the polyalkylene and silane-modified CPG mixture, whereby the cylindrical wells of the aluminum plate act as a mold for the released embedded devices" as cited in claims 1 and 21. Applicant's arguments are fully considered and are moot in view of new ground of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIMPLE N. BODAWALA whose telephone number is (571)272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PHILLIP C. TUCKER can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dimple N Bodawala
Examiner
Art Unit 1791

/D. N. B./
Examiner, Art Unit 1791

/Philip C Tucker/

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Supervisory Patent Examiner, Art Unit 1791